

Remarks

The Office Action mailed on November 21, 2003 has been fully considered.

The Office Action rejects claims 1-3, 6, 9, 10, 14-16, 18-20, and 26-28 under 35 U.S.C. § 103 as being obvious over Machihara et al. (U.S. Pat. No. 6,233,578). Machihara discloses a system for *retrieving* information from a plurality of *database systems*. Machihara achieves this by analyzing informal information requests and determining, from an information resource dictionary, what databases have information to satisfy the request, and then constructing and executing appropriate queries.

The present application, on the other hand, discloses a system for providing a single, uniform, and consistent API for *performing content management actions (such as search, update, display, and add)* in multiple, disparate *content repositories*. Information retrieval is just one of many types of content management actions that may be performed with the present invention. Furthermore, retrieving information from a plurality of database systems, such as that taught by Machihara, is fundamentally different from the present invention because database systems support a standard interface, SQL. Content management systems, such as those taught in the present application, do not support the SQL standard interface, which contributes to the problem solved by the present invention. Also, unlike Machihara, the present invention does not analyze user language information requests, have an information resource dictionary about the content repositories, nor make decisions on which repositories to search. Rather, the present invention virtualizes a plurality of disparate content management systems by providing a common interface to all of them through which content management activities can be performed, of which, searching is just one example.

Referring now to the rejection of independent claims 1, 14, and 22, the Office Action asserts that Machihara discloses a system for retrieving information specified by an information searcher from a plurality of database systems, which are connected to a communication network. The Office Action admits that Machihara does not teach that the database systems have a plurality of proprietary program interfaces and asserts that this is obvious because of Machihara's use of middleware software.

Applicant respectfully submits that Machihara does not teach or suggest user requests to access and manage content in a plurality of disparate content repositories having a plurality of proprietary program interfaces, as taught in the present application and recited in the independent claims. As discussed above, a plurality of content repositories is not a plurality of database systems, such as those database systems taught by Machihara. Furthermore, the present application teaches performing a plurality of content management activities such as search, update, display, add, on the content repositories, not merely searching as taught by Machihara. *See Application*, page 5, lines 23-25.

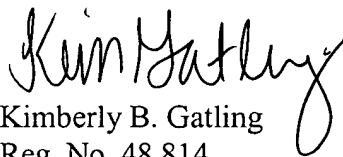
In addition, Machihara teaches a language analysis section 120 for analyzing words that are familiar to the user so they can be converted into system words and an information location retrieval section 130 that determines where the requested items can be found in the databases. Clearly, these language analysis and information location retrieval sections 120, 130 do not indicate a plurality of bridges that translate the user request into a language understood by the plurality of databases, such as SQL. The bridges disclosed in the present application do not perform language analysis and do not have an information location capability or an information resource dictionary, as taught in Machihara. Rather, the bridges of the present invention translate requests (which are not necessarily information retrieval

requests) into the programmatic content management APIs of the plurality of content management systems. Therefore, unlike Machihara which specifies the use of middleware software, the present invention is a new middleware. It is middleware specifically for content management functionality access; a type of middleware that did not previously exist in the art.

Independent claims 1, 14, and 22 have been amended to more clearly recite that the API is configured to generate a user request to access, search, update, display, and add to the content and metadata properties in a plurality of content repositories. The independent claims, as amended, are patentable over Machihara. Dependent claims 2-13, 17-21, and 23-29 are patentable for the same reasons regarding the independent claims.

Based on the foregoing amendments and remarks, allowance of the claims in the application is respectfully requested.

Respectfully submitted,



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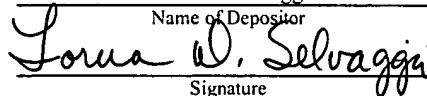
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